ERASED SHEET

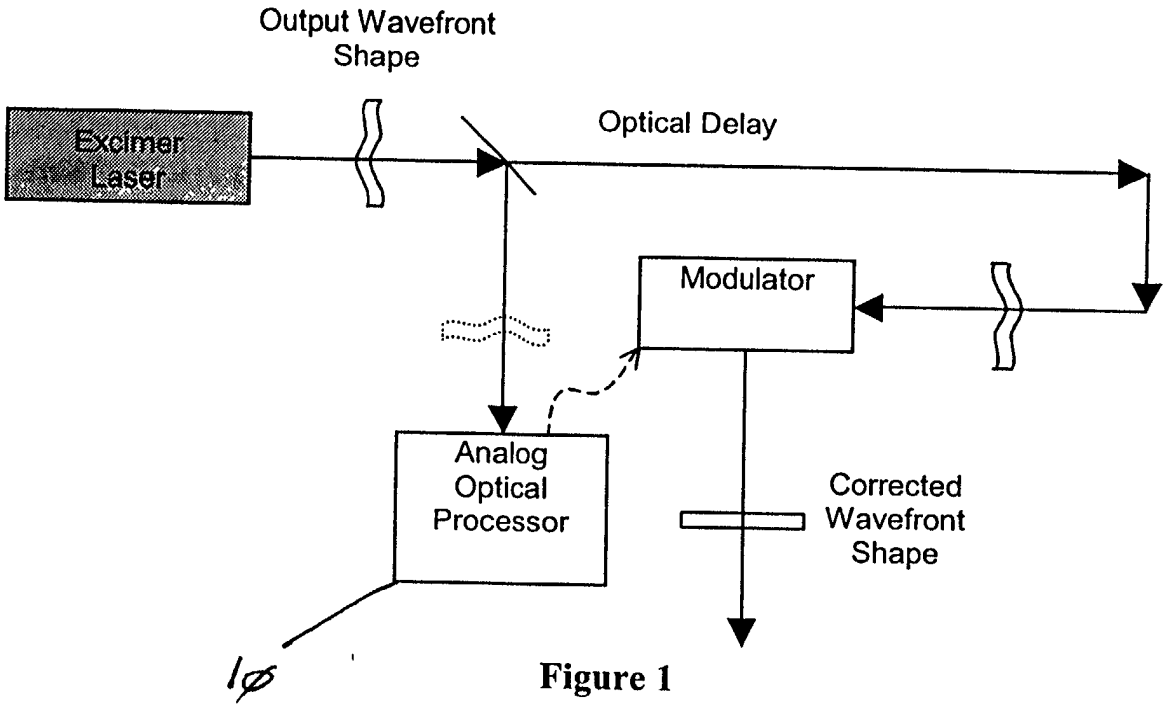


Figure 1

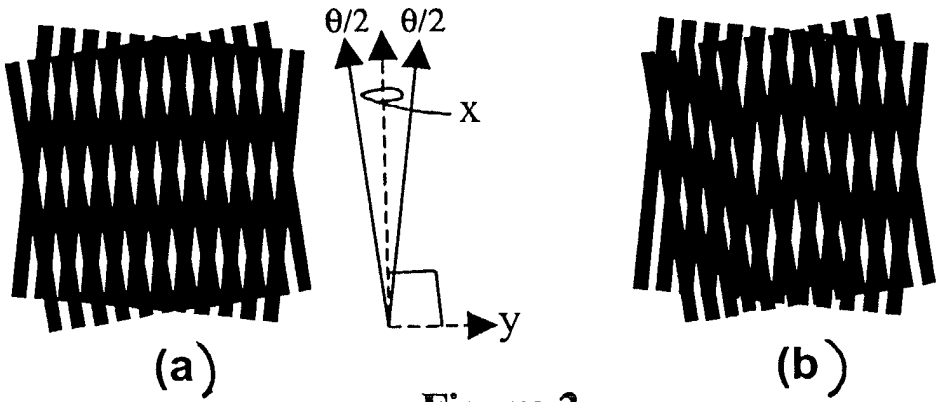


Figure 2

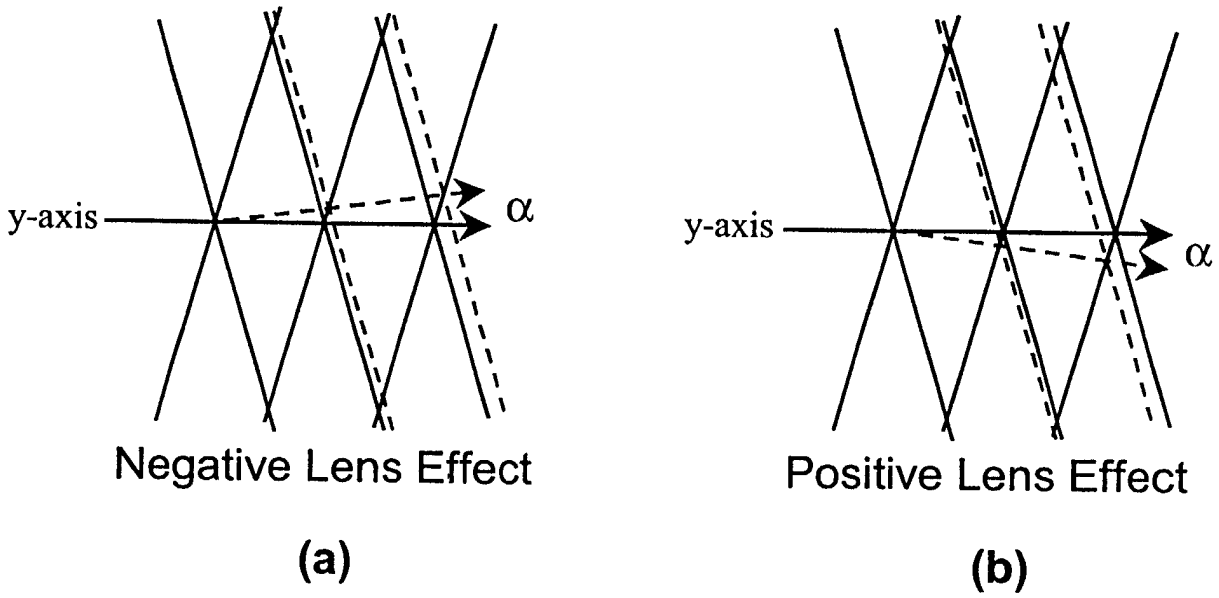

y-axis
α
Negative Lens Effect
(a)
y-axis
α
Positive Lens Effect
(b)

Figure 3

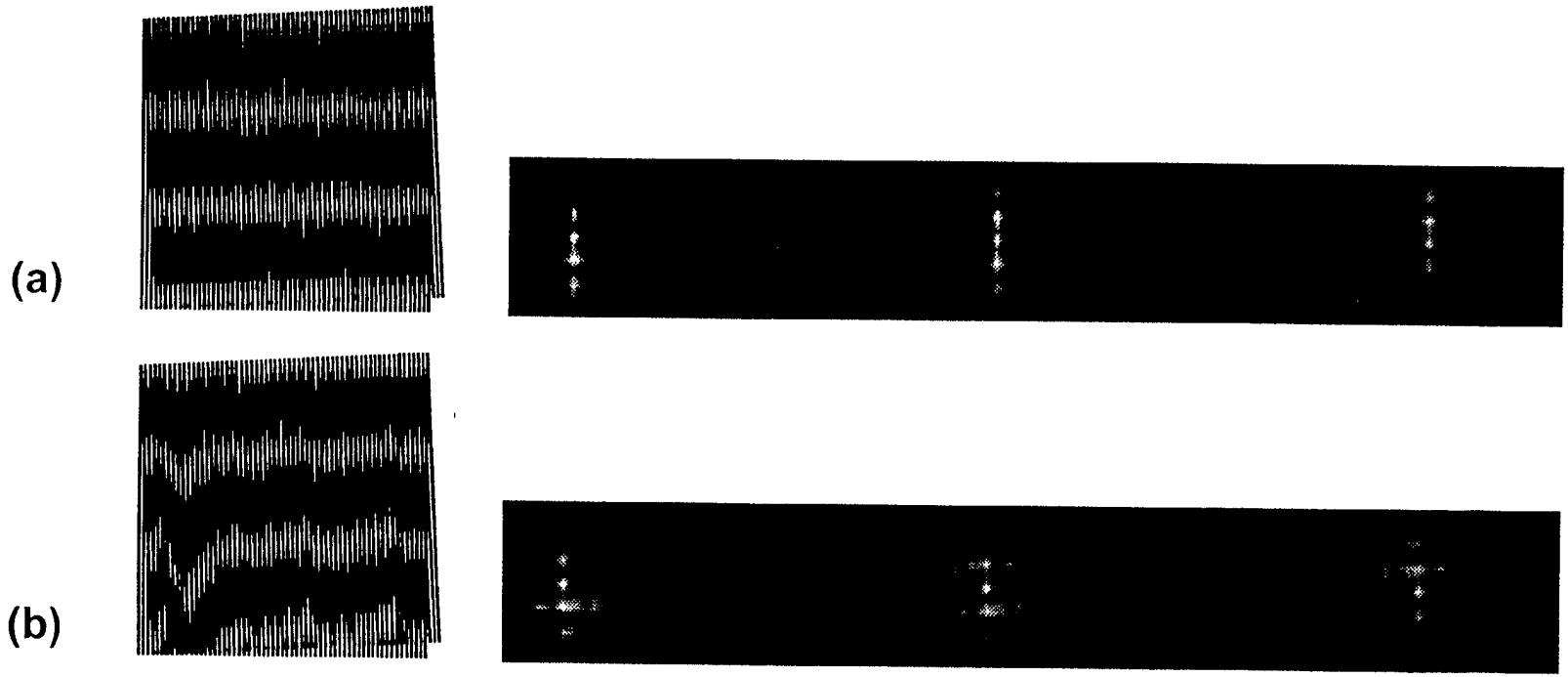


Figure 4

TOSATO: SOST/2/650

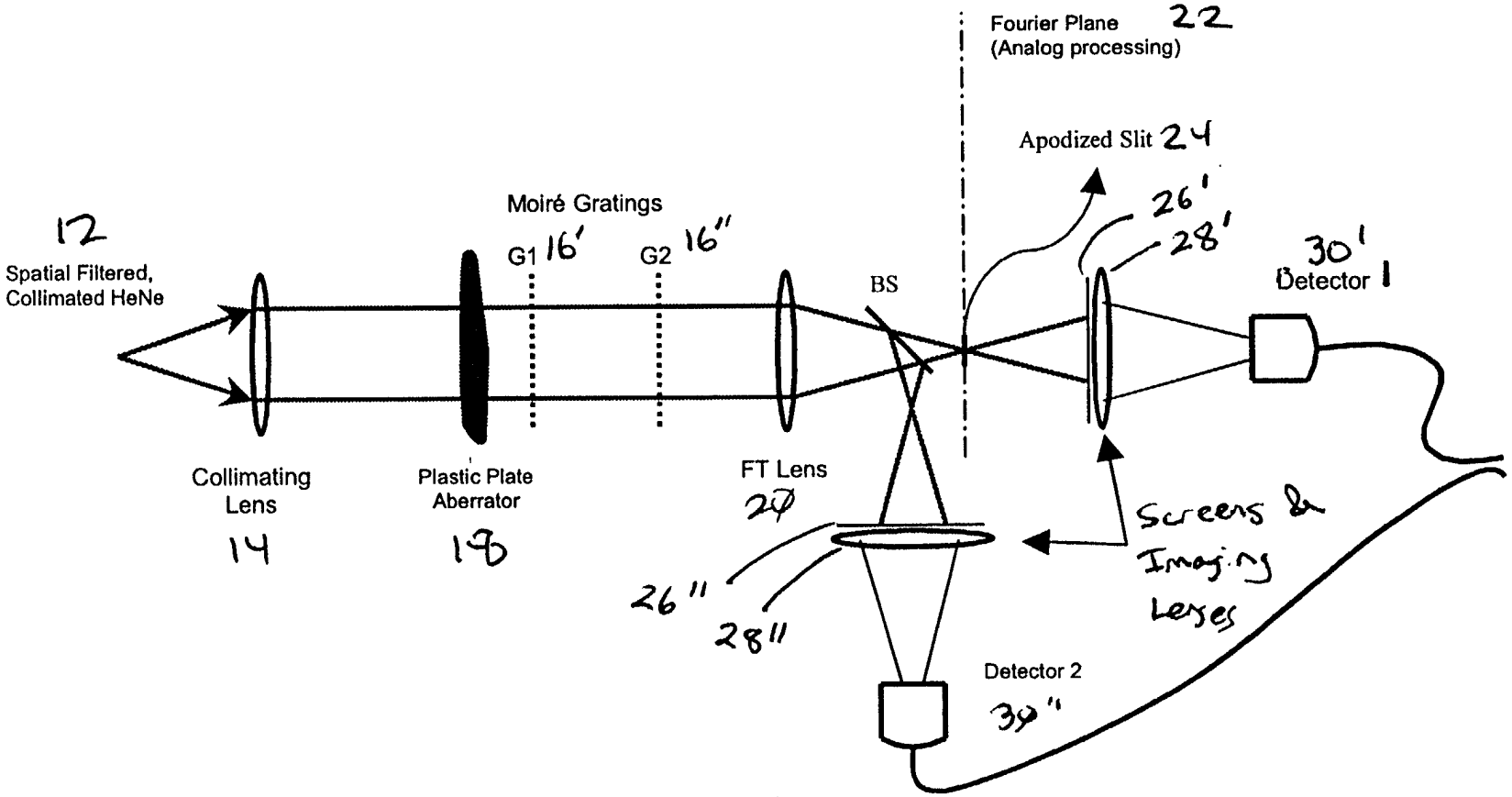


Figure 5

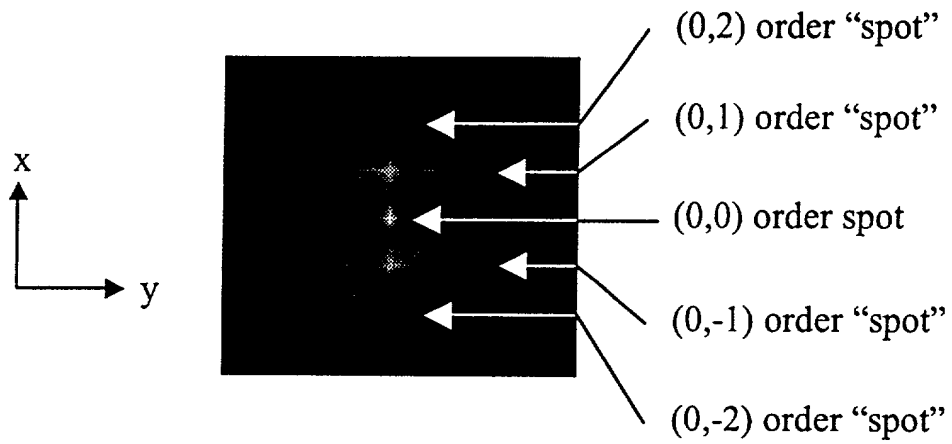

(0,2) order "spot"
(0,1) order "spot"
(0,0) order spot
(0,-1) order "spot"
(0,-2) order "spot"
x
y

Figure 6

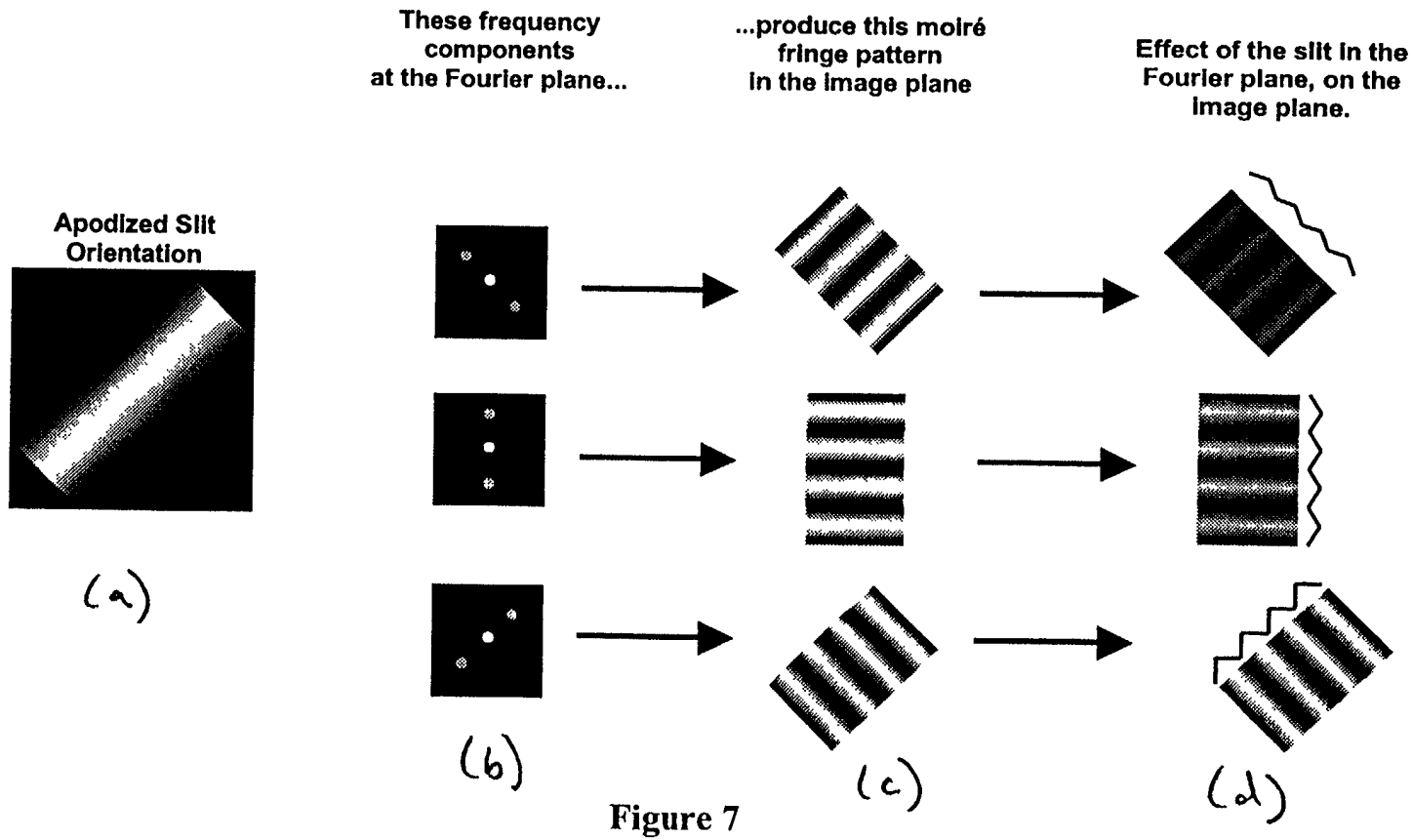
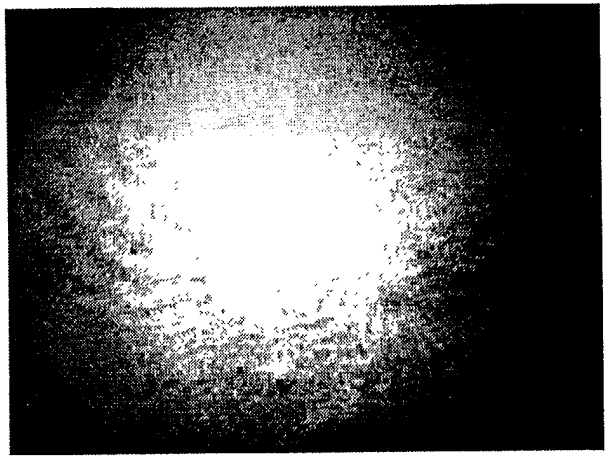

These frequency components at the Fourier plane...
...produce this moiré fringe pattern in the image plane
Effect of the slit in the Fourier plane, on the image plane.
Apodized Slit Orientation
(a)
(b)
(c)
(d)

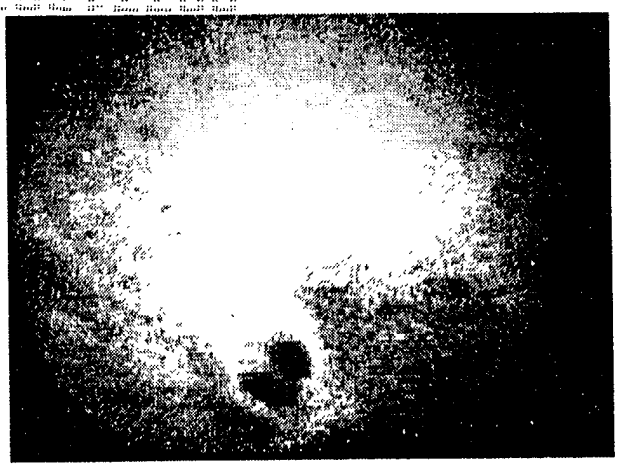
Figure 7



Moiré Deflectogram – *Air* Slit

- Camera does not resolve fringes.
- Imperfect gratings cause secondary fringes.

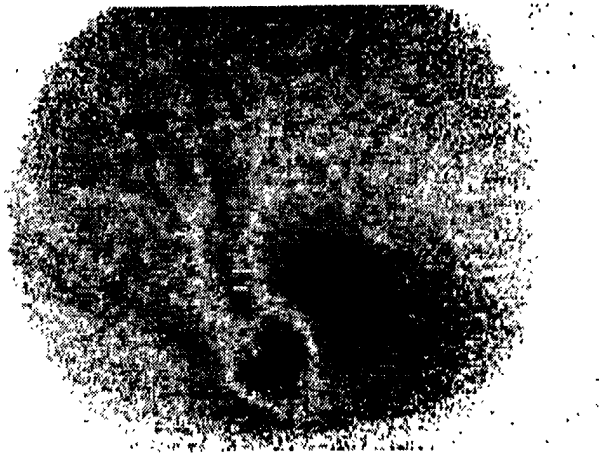
(a)



Moiré Deflectogram *Apodized* Slit

- Very different intensity pattern.

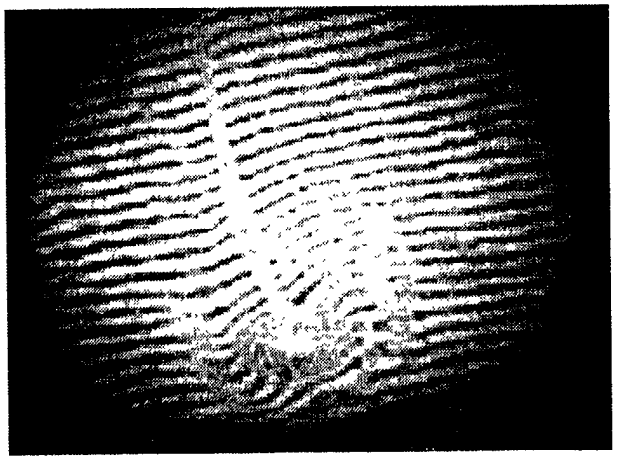
(b)



Normalized Pattern

- All fringe slope information across the profile has equal weighting.
- Proportional to 2nd wavefront derivative.

(c)

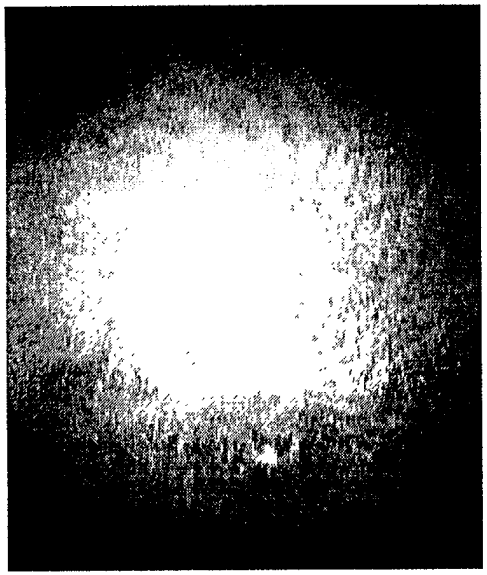


Macroscopic Fringe Deflectogram for Comparison

- Typical deflectogram (camera resolves fringes)

(d)

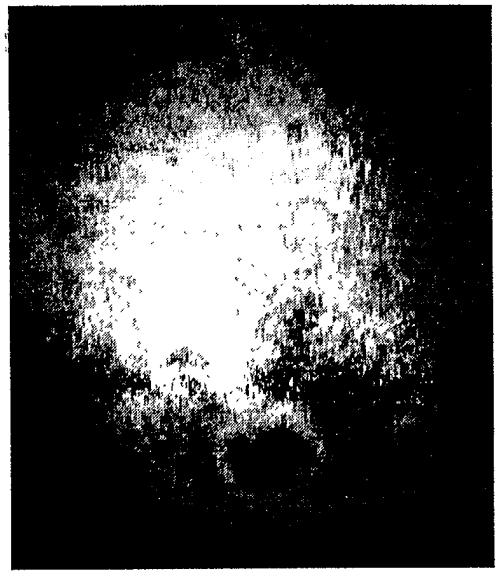
Figure 8



Moiré Deflectogram -- *Air* Slit

- Camera does not resolve fringes.
- Imperfect gratings cause secondary fringes.

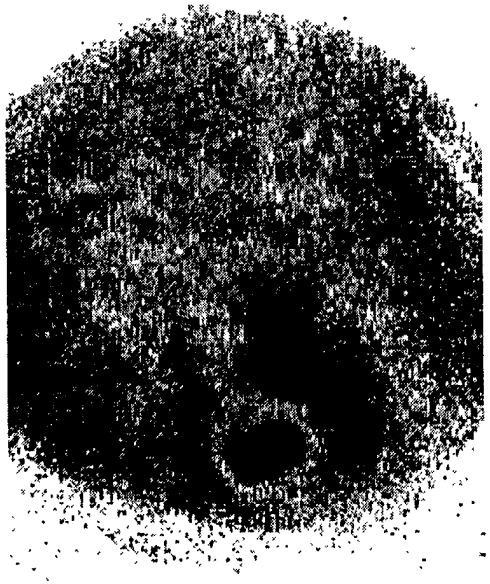
(a)



Moiré Deflectogram -- *Apodized* Slit

- Very different intensity pattern
- Looks like a 3D surface illuminated from the **upper left.**

(b)



Normalized Pattern

- All fringe slope information across the profile has equal weighting.

(c)

Figure 9